

EXECUTIVE SUMMARY

The Phase I Resource Conservation and Recovery Act (RCRA) Facility Investigation/Remedial Investigation (RFI/RI) at the Rocky Flats Environmental Technology Site (RFETS) for Operable Unit 15 (OU15) was conducted to satisfy the requirements of RCRA, the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and the Colorado Hazardous Waste Act, as mandated by the interagency Agreement (IAG) dated January 22, 1991 (DOE, 1991). The performance of the Phase I RFI/RI and the preparation of this report has been guided by the Final OU15 Phase I RFI/RI Work Plan dated March 1993 (the Work Plan) (DOE, 1993) and Technical Memorandum Number 1 for the OU15 Phase I RFI/RI dated May 1994 (TM#1) (DOE, 1994a).

OU15 consists of six RCRA-regulated interim status closure units located inside buildings within the RFETS complex. The six Individual Hazardous Substance Sites (IHSSs) and their locations are:

- IHSS 178 Building 881, Drum Storage Area (Room 165)
- IHSS 179 Building 865, Drum Storage Area (Room 145)
- IHSS 180 Building 883, Drum Storage Area (Room 104)
- IHSS 204 Building 447, Unit 45, Original Uranium Chip Roaster (Rooms 32 and 502)
- IHSS 211 Building 881, Unit 26, Drum Storage Area (Room 266B)
- IHSS 217 Building 881, Unit 32, Cyanide Bench Scale Treatment (Room 131C)

In complying with the requirements of the IAG (DOE, 1991) as they apply to OU15, both RCRA and CERCLA concerns are addressed in this document. This document presents the

toward the dock door. The concrete floor in the IHSS and surrounding area was painted, although the paint was scuffed and in poor condition.

2.5.3 Controls and Postings for IHSS 180

As part of the OU15 Phase I RFI/RI, IHSS 180 was visited on November 3, 1994 to observe the postings and controls present at the IHSS. The entries into Room 137, which provides access into the Building 883 process areas, and Room 104 were posted as RCAs and Contamination Areas. Room 104 is part of a large process area that was formerly used for the production of uranium parts. The Contamination Area postings at the entries to Rooms 104 and 137 reflect conditions that can be encountered somewhere within the process area. No specific radiological or beryllium controls were posted at the actual IHSS area, which covers only a small fraction of the process area.

2.6 IHSS 204

IHSS 204 (also known as RCRA Unit 45) is the Original Uranium Chip Roaster located in Rooms 32 and 502 in Building 447 (Figures 2-6 and 2-7). Access to the unit is provided by Rooms 31 and 501. An equipment wash rack/drum washing basin associated with the Original Uranium Chip Roaster is located in Room 501 (Figure 2-8). The following subsections summarize the historical use of the IHSS as documented in the Work Plan (DOE, 1993), present additional historical information, and describe the findings from the visual inspection and the postings and controls visit of IHSS 204.



2.6.1 Historical Use of IHSS 204

The Original Uranium Chip Roaster is located in Rooms 32 and 502 of Building 447, and is constructed of mild steel casing lined with alumina refractory brick. It is cylindrical with a diameter of 5 feet 6 inches and a height of 7 feet 4 inches. The unit was identified as Unit 45 in the 1986 RCRA Part B permit application (Rockwell, 1986e). ✓

The unit oxidizes elemental uranium to uranium oxide. Depleted uranium chips originated from the Building 444 production area and were historically coated with small amounts of oils and coolants (Freon TF and 1,1,1-trichloroethane). Chips were stored in 55-gallon drums and transferred to Building 447 for roasting. Currently, the Original Uranium Chip Roaster is still operational; however, the uranium chips are no longer coated with oils or coolants that are RCRA-regulated hazardous wastes. ✓

Before roasting, the chips were rinsed with hot water to remove excess coatings. The rinsate was disposed of in the building process drain. The chips were fed into the top of the roaster at a rate of approximately three 55-gallon drums per day. The chips ignited upon entry and sustained self-combustion throughout the roasting cycle. When the roasting cycle was complete, the uranium oxide was removed through a hole in the bottom of the unit and was collected in 30-gallon drums.

An incident involving the roaster occurred in Room 32 of Building 447 on June 28, 1985. The ignition of some cardboard in the room set off the sprinklers and fire alarm, and flooded the basement of the building. A second incident, indirectly related to this IHSS occurred on July 20, 1986. During a major rain event, a main 36-inch storm sewer/drainage system failed and flooded portions of Buildings 444 and 447. In Building 447, several inches of water accumulated throughout the process areas. The basement, including Room 32, was flooded with several feet of water.

The Final Historical Release Report (DOE, 1992b) states, "Because of the operating temperatures of the roaster and the chemical and physical properties of freon TF and 1,1,1-trichloroethane, it is not expected that any residual material remains in this unit." RFETS building personnel indicated that there have been no spills or releases associated with this unit during their tenure with the building over the last 15 years. They added that no hazardous constituents (e.g., solvents) have been used in association with the unit since January of 1988. }

2.6.2 Visual Inspection of IHSS 204

As part of the OU15 Phase I RFI/RI, the site was visited on April 23, 1993 to visually observe the condition of IHSS 204. At the time of the visit, approximately twelve drums were stored in Room 32, and six drums were stored in Room 502. Miscellaneous equipment including ladders and drum dollies were also present in both rooms. No drums or equipment were present in the Wash Rack/Drum Washing Basin, which is located in Room 501. The Original Uranium Chip Roaster spans two floors. The chip inlet is located upstairs in Room 502, and the main body of the roaster, including the oxide outlet ports, is located in Room 32, directly beneath Room 502.

There were no secondary containment berms present around Rooms 32 or 502. No discernable slope was noted for the floors in either room. The concrete floor in both rooms was painted and generally in good condition, although black dust was visible on the floors and exterior surfaces of the chip roaster in both rooms. The concrete pad and berm of the Wash Rack/Drum Washing Basin was in good condition with no apparent gaps or cracks. The floor in the basin sloped to a process drain located in the center of the pad.

2.6.3 Controls and Postings for IHSS 204

As part of the OU15 Phase I RFI/RI, IHSS 204 was visited on November 9, 1994 to observe the postings and controls present at the IHSS. The entry into Room 101 in Building 444, which provides access into the Building 444 and 447 process areas, was posted as an RCA. The doors to Rooms 31 and 501 were posted to warn unauthorized personnel to keep out. Caution labels warning of internal contamination were affixed to the Wash Rack/Drum Washing Basin in Room 501. Room 502, which contains the chip inlet, was posted as a Contamination Area. Room 32, which contains the main body of the chip roaster and the oxide outlet ports, was posted as a Radiation Area and a Contamination Area. The room was also posted to identify it as a hazardous waste treatment unit.

2.7 IHSS 211

IHSS 211 (also known as RCRA Unit 26) is a drum storage area located in Room 266B of Building 881 (Figure 2-9). The following subsections summarize the historical use of the IHSS as documented in the Work Plan (DOE, 1993), present additional historical information, and describe the findings from the visual inspection and the postings and controls visit of IHSS 211.

2.7.1 Historical Use of IHSS 211

IHSS 211 is a drum storage area located in Room 266B on the second floor annex of Building 881. Since May 16, 1989, IHSS 211 has been operating as a RCRA 90-day accumulation area. Prior to this time, the unit was a drum storage area for mixed waste and was included in the hazardous and low-level mixed waste RCRA Part B permit application as Unit 26. The unit was first used as a drum storage area in 1981.



Corrective Action Decision/ Record of Decision

OU15: Inside Building Closures

The Rocky Flats Environmental Technology Site
Golden, Colorado

August 1995

**DOCUMENT CLASSIFICATION
REVIEW WAIVER PER
CLASSIFICATION OFFICE**

COPY

AR 0015-A-0002;

**CORRECTIVE ACTION DECISION/
RECORD OF DECISION DECLARATION**

Site Name and Location

Rocky Flats Environmental Technology Site (Rocky Flats) Operable Unit 15: Inside Building Closures
Golden, Jefferson County, Colorado

Statement of Basis and Purpose

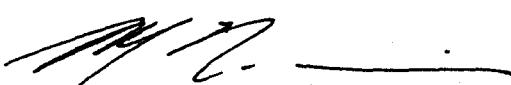
This decision document presents the selected remedial action/corrective action for the Rocky Flats Operable Unit (OU) 15: Inside Building Closures. The selected remedial action was chosen in accordance with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986, the Colorado Hazardous Waste Act (CHWA) and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The Resource Conservation Recovery Act (RCRA) is administered through the CHWA by the Colorado Department of Public Health and the Environment (CDPHE). OU15 was investigated and a Preferred Alternative was selected in compliance with the Federal Facility Agreement and Consent Order Inter-Agency Agreement (IAG) signed by the U.S. Department of Energy (DOE), the State of Colorado, and the U.S. Environmental Protection Agency (EPA) on January 22, 1991.

Description of the Selected Remedies

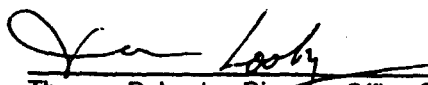
OU15: Inside Building Closures is composed of six Individual Hazardous Substance Sites (IHSSs). The preferred alternative for OU15 consists of the following actions: 1) Clean Closure under RCRA for all six of the OU15 IHSSs; 2) a No Action CERCLA decision for IHSSs 178, 211, and 217; and 3) a deferral of any CERCLA actions at IHSSs 179, 180, and 204 until final disposition of their respective buildings. RCRA closure certification for the six IHSSs, signed by an independent registered professional engineer, has been approved by CDPHE. The No Action CERCLA decision for IHSSs 178, 211, and 217 is based upon the NCP, which provides for the selection of a No Action alternative when a site or OU is already in a protective state. OU15 IHSSs 179, 180, and 204 will be closed as IAG IHSSs and any future CERCLA action decisions will be made based upon the ultimate disposition of the buildings, inclusive of the physical areas previously described as OU15 IHSSs. Evaluation of remedial alternatives and closure activities included waste minimization considerations.

Declaration Statement

DOE has determined that no remedial action is necessary to be protective of human health and the environment at IHSSs 178, 211, and 217 because they meet the clean closure requirements of the Rocky Flats RCRA Permit (RFRP) and the Federal occupational radiation protection standards. At IHSSs 179, 180, and 204, no remedial action is currently necessary, because they meet the clean closure requirements of the RFRP and the Rocky Flats radiological control program is in compliance with Applicable or Relevant and Appropriate Requirements (ARARs)/To Be Considered (TBC) criteria and other identified protective standards. Future CERCLA actions may be required at the time of ultimate disposition of the buildings. Because the remedy will not result in hazardous substances remaining onsite above ARARs, TBCs, or protective standards, a five-year review is not required.


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Jack W. McGraw
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Thomas P. Looby, Director, Office Of Environment,
Colorado Department of Public Health and Environment

9/21/95
Date

10/18/95
Date

9/29/95
Date

Section 1

Decision Summary

Site Name, Location, and Description

The Rocky Flats Environmental Technology Site is located north of the City of Golden in northern Jefferson County, Colorado. A copy of a site location map is attached (See Figure 1). Most Rocky Flats structures and all OU15 IHSSs are located within the industrialized area of Rocky Flats (See Figure 2), which occupies approximately 400 acres. Rocky Flats is surrounded by a buffer zone of approximately 6,150 acres (See Fig. 3).

Rocky Flats is located along the eastern edge of the southern Rocky Mountain region, immediately east of the Colorado Front Range. The site is located on a broad, eastward-sloping pediment that is capped by alluvial deposits of Quaternary age (i.e., Rocky Flats Alluvium). The tops of alluvial-covered pediments are nearly flat but slope eastward at 50 to 200 feet per mile (EG&G, 1992). At Rocky Flats, the alluvial-covered pediment surface is dissected by a series of east-northeast trending stream-cut valleys. The bases of the valleys containing Rock Creek, North and South Walnut Creeks, and Woman Creek lie 50 to 200 feet below the elevation of the older pediment surface. These valleys incise into the bedrock underlying alluvial deposits, but most bedrock is concealed beneath colluvial material accumulated along the gentle valley slopes.

Rock Creek, North and South Walnut Creeks, and Woman Creek are intermittent streams that flow generally from west to east and drain excessive water collected at Rocky Flats. Retention ponds are located in each of the creeks downstream of the main site. Rock Creek surface water flows northeast to the Rock Creek confluence with Coal Creek. Surface water within North and South Walnut Creeks that is not retained within retention ponds used for spill control flows to Great Western Reservoir. Surface water within Woman Creek which is not diverted to Mower Reservoir flows to Standley Lake.

The population, economics, and land use of areas surrounding Rocky Flats are described in a 1989 Rocky Flats vicinity demographics report prepared by the Department of Energy (DOE) (U.S. DOE, 1991a). Land use within 0 to 10 miles of Rocky Flats has been divided within the demographics report into residential, commercial, industrial, parks and open space, agricultural and vacant, and institutional classifications. Most residential use within five miles of Rocky Flats is located immediately northeast, east, and southeast of Rocky Flats. Commercial development is concentrated near residential developments north and southwest of Standley Lake and around Jefferson County Airport, located approximately three miles northeast of Rocky Flats. Industrial land use within five miles of the site is limited to quarrying and mining operations. Natural resources associated with the quarrying and mining activities include gravel and coal. Open-space lands are located northeast of Rocky Flats near the City of Broomfield and in small parcels adjoining major drainages and small neighborhood parks in the cities of Westminster and Arvada. The west, north, and east sides of Standley Lake are surrounded by open space. Irrigated and nonirrigated croplands, producing primarily wheat and barley, are located north and northeast of Rocky Flats near the cities of Broomfield, Lafayette, Louisville, and Boulder and in scattered parcels adjacent to the east boundary of the site. Several horse operations and small hay fields are located south of Rocky Flats. The demographic report characterizes much of the vacant land adjacent to Rocky Flats as rangeland.

Site History and Enforcement Activities

Rocky Flats is a government-owned, contractor operated facility, which was a part of the nationwide Nuclear Weapons Complex. The site was operated for the U.S. Atomic Energy Commission (AEC) from its inception during 1951 until the AEC was dissolved during 1975. At that time, responsibility for Rocky Flats was assigned to the Energy Research and Development Administration (ERDA), which was succeeded by DOE during 1977. Previous operations at Rocky Flats consisted of fabrication of nuclear weapons components from plutonium, uranium, and nonradioactive metals (i.e., stainless steel and beryllium).

Various studies were conducted at Rocky Flats to characterize environmental media and to assess the extent of radiological and chemical contaminant releases to the environment. The investigations performed before 1986 were summarized by Rockwell International (1986a). During 1986, two investigations were completed at the site. The first was the DOE Comprehensive Environmental Assessment and Response Program (CEARP) Phase I Installation Assessment (U.S. DOE, 1986). A number of sites that could potentially have adverse impacts on the environment were identified and designated as Solid Waste Management Units (SWMUs) within the CEARP of Rocky Flats. The second investigation involved a hydrogeologic and hydrochemical characterization of Rocky Flats (Rockwell International, 1986b).

On January 22, 1991, a Federal Facility Agreement and Consent Order (i.e., the Interagency Agreement (IAG)) was signed by DOE, EPA Region VIII, and the State of Colorado. The IAG assigned eight IHSSs to OU15 (178, 179, 180, 204, 211, 212, 215, and 217). However, IHSSs 212 and 215 are no longer included as part of OU15. IHSS 212 is now addressed in Part VIII of the Rocky Flats RCRA Mixed Residues Permit Modification (DOE, 1992), and IHSS 215 was transferred to OU9 in a Modification to Work of the IAG (DOE, 1991b) dated April 21, 1992. As required by the IAG, draft and final Work Plans, and draft and final RCRA Facility Investigation/Remedial Investigation (RFI/RI) Reports were prepared and submitted to the regulatory agencies. In addition, a Technical Memorandum was prepared to evaluate the need for sampling outside buildings containing OU15. The RFI/RI Report for OU15 was prepared in accordance with the IAG Statement of Work (Attachment 2 of the IAG) to fulfill IAG requirements for submittal of documentation and data necessary to determine if the risk from OU15 IHSSs warrants the need for remedial action.

The IAG scope of work was incorporated into the Rocky Flats RCRA Permit (RFRP). Upon signature of the Corrective Action Decision/Record of Decision (CAD/ROD) by DOE, EPA, and the State of Colorado, the State shall modify the RFRP to incorporate the CAD/ROD for OU15.

Highlights of Community Participation

Results of the Phase I RFI/RI for OU15 were presented to the public at the Rocky Flats Quarterly meeting on February 15, 1995 and at the Rocky Flats Citizens Advisory Board on April 20, 1995. The OU15 Proposed Plan and Draft Permit Modification were presented to the Rocky Flats Technical Review Group on May 11, 1995 and a public comment period was held concurrently from May 17, 1995, to July 17, 1995. At a public hearing conducted on June 21, 1995, public comments and questions regarding the *Proposed Plan and Draft Modification of Colorado Hazardous Waste Permit for Rocky Flats Environmental Technology Site Operable Unit 15: Inside Building Closures* were recorded and responses are included in the Responsiveness Summary, Section 2, of this ROD.

Scope and Role of Operable Unit 15 within Site Strategy

The six IHSSs comprising OU15 are located in buildings, inside the Industrial Area (See Figure 2.) and are listed in the following table:

IHSS 178 -	Building 881, Drum Storage Area (Room 165)
IHSS 179 -	Building 865, Drum Storage Area (Room 145)
IHSS 180 -	Building 883, Drum Storage Area (Room 104)
IHSS 204 -	Building 447, RCRA Unit 45, Original Uranium Chip Roaster (Rooms 32 and 502)
IHSS 211 -	Building 881, RCRA Unit 26, Drum Storage Area (Room 266B)
IHSS 217 -	Building 881, RCRA Unit 32, Cyanide Bench Scale Treatment (Room 131C).

The scope for OU15 IHSSs as defined within Table 5 of the IAG includes submittal of documentation and data required to close the regulated units in accordance with the IAG and the regulations. The RFI/RI work plans and reports were completed and submitted in accordance with the requirements specified within Table 5 and Table 6 of the IAG. In addition, a Technical Memorandum for field work outside buildings was prepared as defined within the approved RFI/RI work plan for OU15.

Site Characteristics

All OU15 IHSSs are located within buildings. Detailed information regarding OU15 IHSSs is included in the approved Phase I RFI/RI Report for OU15. The RCRA evaluation for OU15 consisted of comparing hot water rinsate analyses to the RCRA clean closure Performance Standards defined in the RFRP. The CERCLA evaluation for OU15 consisted of comparing (screening) radionuclide surveys and analyses to appropriate radiation protection standards, as well as to DOE and Rocky Flats guidance, and evaluating beryllium smear data. The screening was performed in four steps as described in section 5.2.1.3 of the RFI/RI report. A brief description of each IHSS and the investigative procedures are listed below:

IHSS 178, Building 881, Drum Storage Area (Room 165). IHSS 178, which has a maximum storage capacity of five 55-gallon drums, was first used in 1953 when Building 881 operations began. The drums stored in the IHSS contained wastes contaminated with solvents and possibly low-level radioactivity. Thirty radiological smear samples were collected from the IHSS and three hot water rinsate samples were obtained from the IHSS, perimeter, and pathway areas. Final radiological surveys at each of the 30 initial smear sample locations were performed. No RCRA-regulated constituents of regulatory concern were identified in the IHSS sampling. Also, none of the data collected during the CERCLA evaluation with respect to radionuclides and beryllium exceeded the screening criteria.

IHSS 179, Building 865, Drum Storage Area (Room 145). IHSS 179, which has a maximum storage capacity of ten 55-gallon drums, was first used for drum storage in 1970. The dimensions of the IHSS are approximately 8 feet by 12 feet. Drums stored in the IHSS contained oils, chlorinated solvents, low-level radioactive waste and possibly beryllium. Twenty-three radiological and beryllium smear samples were collected from the IHSS and

three hot water rinsate samples were obtained from the IHSS, perimeter, and pathway areas. Final radiological surveys at each of the 23 initial smear sample locations were performed. No RCRA-regulated constituents of regulatory concern were identified in the IHSS sampling. Also, none of the data collected during the CERCLA evaluation with respect to radionuclides and beryllium exceeded the screening criteria.

IHSS 180, Building 883, Drum Storage Area (Room 104). IHSS 180, which has a maximum storage capacity of thirty 55-gallon drums, measures 10 feet by 16 feet and was first used for drum storage in 1981. Drums stored in the IHSS contained oils contaminated with solvents, uranium and beryllium. Forty-nine radiological and beryllium smear samples were collected from the IHSS and four hot water rinsate samples were obtained from the IHSS, perimeter, and pathway areas. Final radiological surveys at each of the 49 initial smear sample locations were performed. No RCRA-regulated constituents of regulatory concern were identified in the IHSS sampling. The data collected during the CERCLA evaluation did not detect radionuclides in the hot water rinsate samples above the permissible levels and none of the post-rinsate smear samples exhibited total alpha or beta activity exceeding the permissible levels. However, seven of the sampling areas surveyed for beta dose-rate exceeded the established screening criteria limit of 2.5 mrem/hr. An evaluation based on occupational exposure showed total effective dose equivalents below 5 rem/yr.

IHSS 204, Building 447, RCRA Unit 45, Original Uranium Chip Roaster (Rooms 32 and 502). IHSS 204, the Original Uranium Chip Roaster, was used historically to oxidize uranium chips coated with small amounts of oils and coolants, converting the elemental uranium to uranium oxide. The unit is cylindrical with a diameter of 5 feet 6 inches and a height of 7 feet 4 inches. The inlet for the unit is located in Room 502 and the outlet is located directly downstairs in Room 32. No hazardous constituents have been treated in this unit since January 1988, when the uranium chips processed in the unit ceased to be coated with oils and coolants. A total of seventy-seven radiological smear samples were collected from the IHSS (rooms 31, 32, 501, and 502; chip roaster; and wash rack/drum washing basin in room 501). Seven hot water rinsate samples were obtained from the IHSS. No RCRA-regulated constituents of regulatory concern were identified in the IHSS sampling. No radionuclides detected in the hot water rinsate samples from IHSS 204 exceeded the permissible radionuclide levels. The prerinsate smear samples from the floor surfaces in Rooms 32 and 502 and the outside surfaces of the Chip Roaster inlet and outlet confirmed the presence of radiological contamination at IHSS 204. Rooms 32 and 502 are posted and managed as radiological areas.

IHSS 211, Building 881, RCRA Unit 26, Drum Storage Area (Room 266B). IHSS 211, which has a maximum storage capacity of twenty-nine 55-gallon drums, was first used as a drum storage area in 1981. The dimensions of the IHSS are approximately 10 feet by 20 feet. The wastes stored in the unit have historically included low-level radioactive combustibles (rags, wipes, etc.), metals, glass and materials which contained solvents and/or metals generated by laboratories in the building. Thirty-two radiological smear samples were collected from the IHSS and three hot water rinsate samples were obtained from the IHSS, perimeter, and pathway areas. Final radiological surveys at each of the 32 initial smear sample locations were performed. No RCRA-regulated constituents of regulatory concern were identified in the IHSS sampling. Also, none of the data collected during the CERCLA evaluation with respect to radionuclides exceeded the screening criteria.

IHSS 217, Building 881, RCRA Unit 32, Cyanide Bench Scale Treatment (Room 131C). IHSS 217 consists of a 4 feet by 5 feet painted metal fume hood and laboratory table, three 4-liter polyethylene bottles, a glass beaker and a chlorine-specific ion electrode. The unit was

used as a bench scale treatment process to convert cyanide to cyanate. Thirteen radiological smear samples were collected from the IHSS and one hot water rinsate sample was obtained from the IHSS. Final radiological surveys at each of the 13 initial smear sample locations were performed. No RCRA-regulated constituents of regulatory concern were identified in the IHSS verification sampling. Also, none of the data collected during the CERCLA evaluation with respect to radionuclides exceeded the screening criteria.

Summary of Site Risks

The risks to human health and the environment associated with the OU15 IHSSs were characterized as part of the OU15 RFI/RI, which was completed in accordance with the requirements presented in the IAG and specifically identified in the Final Phase I RFI/RI Work Plan for OU15. A detailed discussion of the methods and results is presented in the Final Phase I RFI/RI Report. To evaluate risks to workers inside the buildings, the results of the sampling and analysis were compared to potential Applicable or Relevant and Appropriate Requirements (ARARs) and applicable protective standards termed To Be Considered (TBC) criteria. The potential ARARs and TBCs were approved in the Final Phase I RFI/RI Work Plan for OU15.

For OU15, ARARs and protective standards were identified for both hazardous constituents (e.g., spent solvents, metals) and radionuclides. The ARAR used to evaluate hazardous constituents was the RCRA clean closure performance standard (6 Colorado Code of Regulations 1007-3, Section 265.111), which specifies that the IHSSs must be closed in a manner that protects human health and the environment. RCRA is administered through the CHWA by the Colorado Department of Public Health and the Environment. The standards were satisfied when analytical results from the samples collected at each IHSS exhibited no traces of hazardous constituents historically managed in the IHSS.

In order to protect individuals at DOE sites and facilities from exposure to radiation and radioactive materials, DOE established practices for the conduct of radiological operations in DOE orders. The radiation protection standards for workers were subsequently promulgated as a Federal regulation in 10 CFR 835, under the authority of the Atomic Energy Act.

Upon further review of the potential ARARs and TBCs approved in the Final Phase I RFI/RI Work Plan for OU15, it was determined that within the OU15 CAD/ROD, 10 Code Of Federal Regulation (CFR) 835 is recognized as a TBC Protective Standard not as an ARAR. Protection against radiation (10 CFR 20, APP. B) is referenced in 10 CFR 835 and therefore is not specified as a Protective Standard or as an ARAR in the OU15 CAD/ROD. Protective Standards for occupational radiation protection (10 CFR 835) are not promulgated as environmental laws and therefore are not considered ARARs per EPA guidance within the NCP.

The results of visual inspections and sampling and analytical results demonstrate that the IHSSs are in compliance with the ARARs specified for hazardous constituents. No hazardous constituents associated with the management of wastes at OU15 were detected in the samples from the IHSSs.

IHSSs 178, 211, and 217 meet the Federal occupational radiation protection standards and pose no unacceptable risk to workers. Based on the radionuclides levels present at these IHSSs, specific radiological controls are not necessary to meet the worker dose limit standards. IHSSs 179, 180, and 204 are located within radiological control areas, and subject

to the procedures which are a part of the Rocky Flats Radiological Control Program in compliance with the protective standards for radionuclides.

The results of the sampling and analysis, along with the review of historical records and the visual inspections, indicate that there have not been releases of either hazardous constituents or radiological contamination to the environment external to the buildings containing the OU15 IHSSs. The radiological control program for IHSSs 179, 180, and 204 will assure that no contaminants are released from the buildings. Therefore, these three IHSSs pose no risk to human, plant and animal populations outside of their respective buildings.

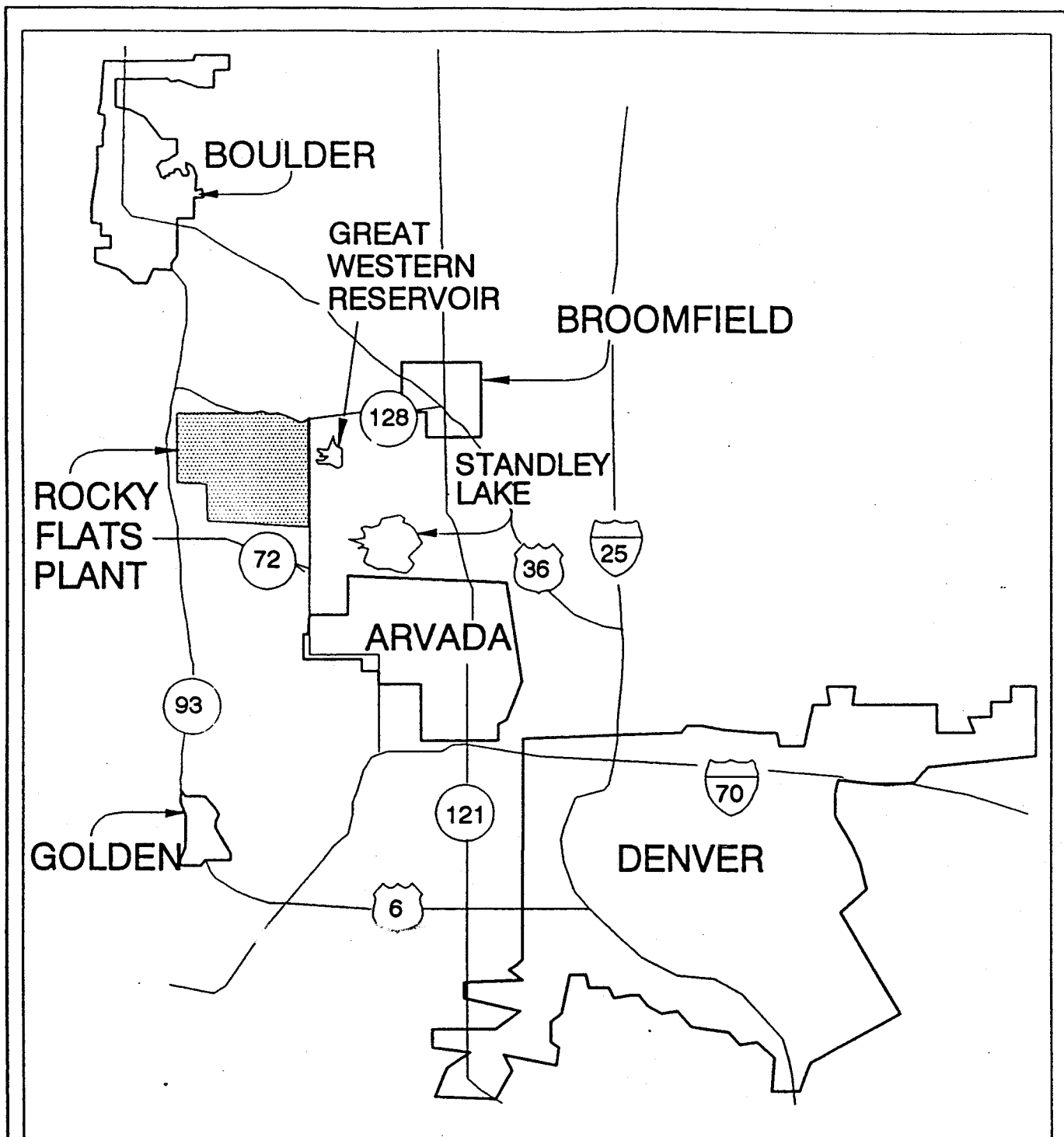
Selected Remedy

The preferred alternative proposed in this plan for OU15 consists of the following actions: 1) Clean Closure under RCRA for all six of the OU15 IHSSs; 2) a No Action CERCLA decision for IHSSs 178, 211, and 217; and 3) a deferral of any actions at IHSSs 179, 180, and 204 until final disposition of their respective buildings.

Clean closure under RCRA can be concluded since all six IHSSs meet the clean closure requirements of the Rocky Flats RCRA Permit. RCRA closure certification for the six IHSSs, signed by an independent registered professional engineer, has already been submitted to CDPHE. The No Action CERCLA decision for IHSSs 178, 211, and 217 is based upon the NCP, which provides for the selection of a No Action alternative when a site or OU is already in a protective state. IHSSs 179, 180, and 204 are within radiological control areas at Rocky Flats and actions at these physical areas are deferred until final disposition of the buildings in which they are located. All OU15 IHSSs will be closed with respect to RCRA and CERCLA. Any future CERCLA action decisions will be made based upon the ultimate disposition of the buildings, inclusive of the physical areas previously described as OU15 IHSSs.

Explanation of Significant Changes

No changes in the selected remedy have been made since the release of the *Proposed Plan and Draft Modification of Colorado Hazardous Waste Permit for Rocky Flats Environmental Technical Site Operable Unit 15: Inside Building Closures*.



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APPROXIMATE SCALE: 1" = 5 MILES

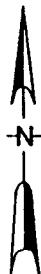


FIGURE 1
SITE LOCATION MAP

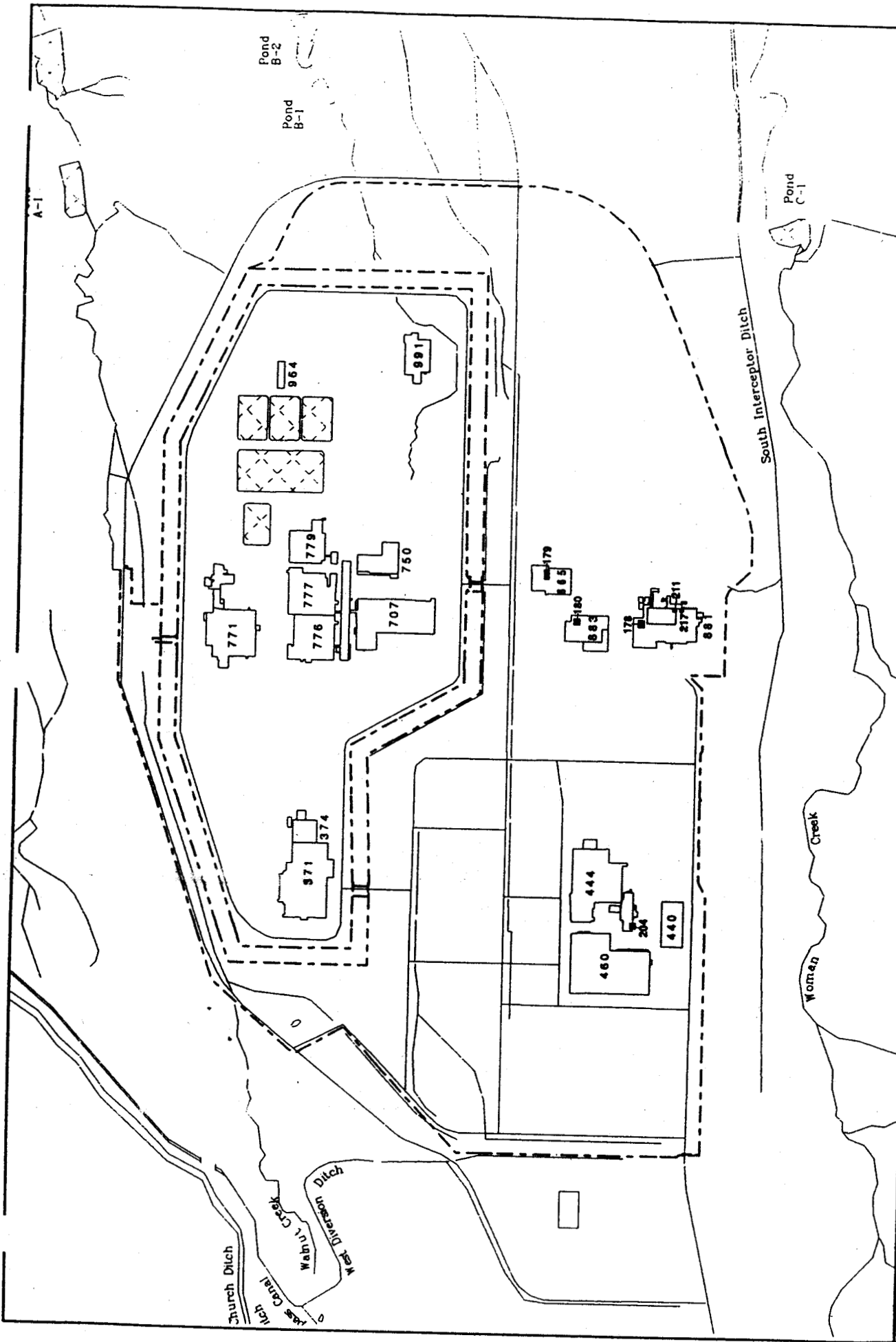


Figure 2 Operable Unit 15: Inside Building Closures

DATA SOURCE
Individual Hazardous Substance Sites derived from the Historical Release Report and Operable Unit Workplan

Legend:





- Streams, ditches, and other drainage features
- Security fence
- Paved road
- Individual Hazardous Substance Sites (HSS)
- Lakes and ponds
- Buildings or other structures

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Rocky Flats Environmental Technology Site - May, 1995

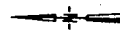
Figure 3

ROAD CLASSIFICATION

-  Heavy-duty
-  Medium-duty
-  Light-duty
-  Unimproved dirt

Standard Map Features

-  Buildings and other structures
-  Ponds and lakes
-  Streams, ditches, and other drainage features
-  Rocky Flats boundary

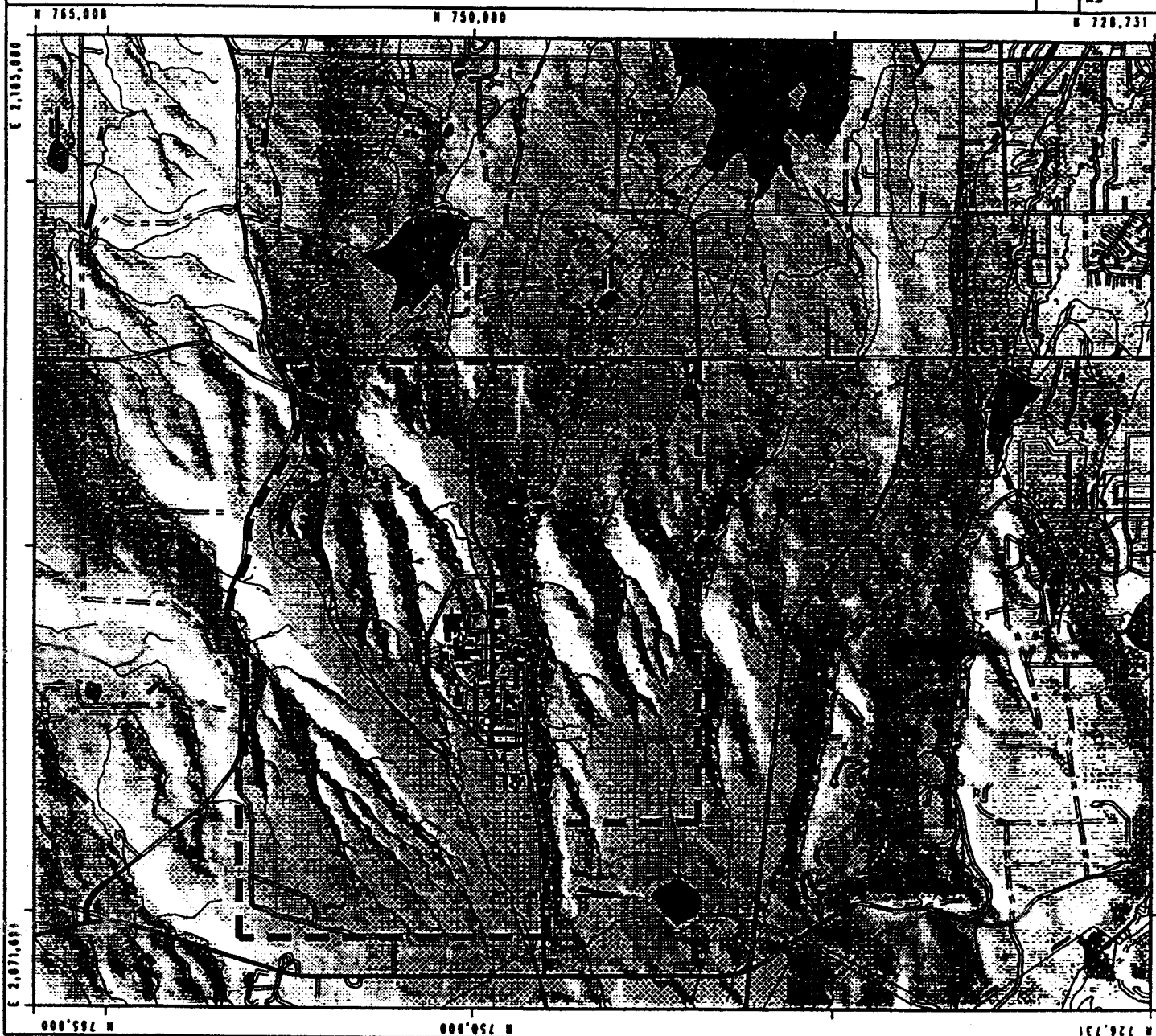


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 Contour Interval: 20m
 Datum: NAD27

U.S. Department of Energy
 Rocky Flats Environmental Technology Site

RMRS
 Rocky Mountain
 Remediation Services, LLC
 10000 North 10th Street, Suite 100
 Denver, Colorado 80231



Section 2

Responsiveness Summary for Public comments on the Proposed Plan /Draft Modification of Colorado Hazardous Waste Permit for the Rocky Flats Plant Operable Unit 15: Inside Building Closures (May 10, 1995)

No Written Comments Were Received.

The Responsiveness Summary for Public comments from the June 21, 1995, Public Hearing for OU 15 is Presented below:

Susan Hurst, Publication Director for Environmental Information Network:

Question 1

I'd like to know exactly where the survey, the swipes, or whatever you did, were taken to make sure that it's a reasonable way that it was done.

Response to Question 1

The sample locations and methodologies are described in Section 3 of the Final Phase I RFI/RI Report Operable Unit 15 Inside Building Closures.

Question 2

And are those (Phase I RFI/RI Report) only available at the reading room, or do you have to order it, or what?

Response to Question 2

The report is available in the Public Reading Rooms. A copy of the report was made available to Ms. Hurst.

Question 3

And I had an additional comment. Oh, about the lead. I would like to make a comment that in the past, they used a lot of the lead-based paint to shield the radiation that was already in the room, and my understanding is there's several layers of this paint. And I'm wondering if possibly the lead you're getting may be coming from the paint?

Response to Question 3

As stated in Section 4.0 on page 14 Field Accuracy-Hot Water Rinsate Blanks of the Phase I RFI/RI Report, the lead detected in the IHSS samples was attributed to the source water used for the hot water rinsate sampling. Lead was detected in the source water (field blank samples).

No evidence of leaded paint being used to shield radiation in OU15 was found.

Question 4

No, my question is, is it (IHSSs) in one little area or is it the whole room?

Response to Question 4

The IHSSs are small areas which are located within large rooms. For example, IHSS 179 is four feet by 10 feet in size and is contained in a room that is larger than 100 feet by 100 feet. Another example is IHSS 217, which is a chemical hood having a base approximately four feet by six feet in size. The chemical hood is located in a laboratory room. The IHSSs are shown in the figures in Section 3 of the RFI/RI report.

Question 5

Are you --are you referring to like markers or just wall paint.

Response to Question 5

Several of the IHSS locations are identified by painted areas on the floors. The paint is used to identify the IHSS location not as a shield for radiation. No evidence of leaded paint being used to shield radiation in OU15 ~~was found~~. In addition, several IHSSs, such as IHSS 217 the chemical hood, are painted for preservation purposes similar to painting a house or automobile.

Comment 1

And then I had a comment about the IHSS areas being utilized for the privatization plan. I think it's a bad idea while we're got storage out there.

Response to Comment 1

No storage or treatment is being conducted in the IHSSs which are scheduled to be privatized. Three IHSSs in OU15 are scheduled to be privatized. The standards for privatized IHSSs are the same as for closure under the NCPP for worker protection.

Paula Elofson-Gardine, Executive Director for the Environmental Information Network, and the Chair for the DOE Rocky Flats Technical Review Group:

Comment 1

And overall, in a general sense, I don't really have a problem with your current plan. It seems to be reasonable.

Response to Comment 1

Thank you.

General Comments

However, there is some concern about the adequacy of the plans for NCPP, with the IHSS as in Building 447, 883, and 865, most particularly with building 447.

If you obtain a copy of the 1989 EG&G remote sensing lab aerogamma survey, which is on the bottom of one of our fliers, there are pretty severely high hot areas of building shine from an area around the railroad spur, around the 400 compound, that is hot with manmade gross count and americium photo peaks that really should be taken into consideration as external penetrating gamma radiation that may be something you should be concerned about for people that are being --I don't want to say lure or baited. Let's say the plans to bring new victims on there, and we want to make sure the people actually have informed consent and have some kind of idea of what they may be exposed to.

Response to General Comments

Characterization studies for the IHSSs in the buildings have been completed and have determined that the IHSSs meet the protective standards required for workers as part of 10 CFR 835. An IM/IRA has been prepared as part of the National Conversion Pilot Project (NCPP) and was submitted for public comment on December 5, 1994. A Public Hearing for the NCPP IM/IRA was held on January 11, 1995. The NCPP is outside the scope of the Proposed Plan /Draft Modification of Colorado Hazardous Waste Permit for the Rocky Flats Plant Operable Unit 15: Inside Building Closures.

Appendix A – Acronym List

Rocky Flats	The Rocky Flats Environmental Technology Site
OU	Operable Unit
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
SARA	Superfund Amendments and Reauthorization Act
CHWA	Colorado Hazardous Waste Act
NCP	National Oil and Hazardous Substances Pollution Contingency Plan (National Contingency Plan)
RCRA	Resource Conservation and Recovery Act
CDPHE	Colorado Department of Public Health and Environment
IAG	Interagency Agreement
DOE	Department of Energy
EPA	Environmental Protection Agency
IHSS	Individual Hazardous Substance Site
RFRD	Rocky Flats RCRA Permit
ARAR	Applicable or Relevant and Appropriate Requirements
TBC	To Be Considered
AEC	Atomic Energy Commission
ERDA	Energy Research and Development Administration
CEARP	Comprehensive Environmental Assessment and Response Program
SWMU	Solid Waste Management Unit
RFI/RI	RCRA Facility Investigation/Remedial Investigation
CAD/ROD	Corrective Action Decision/Record of Decision
CFR	Code of Federal Regulation
NCPP	National Conversion Pilot Project

Appendix B - References

EG&G, 1992: EG&G Rocky Flats, Inc., "Phase I Geologic Characterization Data Acquisition - Surface Geologic Mapping of the Rocky Flats Plant and Vicinity, Jefferson and Boulder Counties, Final Report," Golden, Colorado, March 1992.

Rockwell International, 1986a: Rockwell International, "Annual Environmental Monitoring Report, January-December 1985," Golden, Colorado: Rockwell International, Rocky Flats Plant, Report RFP-ENV-85, 1986.

Rockwell International, 1986b: Rockwell International, "Resource Conservation and Recovery Act Part B - Post Closure Care Permit Application for U.S. Department of Energy, Rocky Flats Plant, Hazardous and Radioactive Mixed Wastes," U.S. Department of Energy, unnumbered report, 1986.

U.S. DOE, 1986: U.S. Department of Energy, "Comprehensive Environmental Assessment and Response Program Phase I: Draft Installation Assessment, Rocky Flats Plant," Washington, D.C., DOE unnumbered draft report, 1986.

U.S. DOE, 1991a: U.S. Department of Energy, "1989 Population, Economic, and Land Use Data Base for the Rocky Flats Plant, Golden, Colorado," Washington, D.C., DOE, in press, 1991.

U.S. DOE, 1991b: U.S. Department of Energy, "Federal Facility Agreement and Consent Order (Interagency Agreement [IAG]; DOE, EPA, and CDH)," Washington, D.C., January 22, 1991.

U.S. DOE, 1992: U.S. Department of Energy, "State RCRA Permit Modification Request No. 8 for Mixed Residues," Rocky Flats Plant, ID No. CO7890010526, Permit No. 91-09-30-01, June 1992.

File Closure On 13

CORRES. CONTROL
INCOMING LTR NO.

0133L RF95

States Government

Department of Energy

May 1 1 38 PM '95 Rocky Flats Office

memorandum

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DATE

ACTION

APR 28 1995

EG&G
ROCKY FLATS PLANT
CORRESPONDENCE CONTROL

DIST. LTR ENC

ER:WNF:08355

BURLINGAME, A.H.

CARNIVAL, G.J.

CORDOVA, R.C.

DAVIS, J.G.

ENN, T.M.

ERRERA, D.W.

FRAY, R.E.

SEIS, J.A.

GILMARTIN, J.T.

GINTHER, B.

GLOVER, W.S.

SOLAN, P.M.

HEALY, T.J.

HEDAH, T.G.

HILBIG, J.G.

HOLLOWELL, L.J.

JACKSON, D.T.

KELL, R.E.

LEINWEBER, S.A.

MARX, G.E.

MCCART, D.

MCDONALD, M.M.

MCGOVERN, L.J.

MCKENNA, F.G.

PAIKERT, J.G.

PUTO, V.M.

SA, TERWHITE, D.G.

SCHRADER, D.C.

SCHUBERT, A.L.

STIGER, S.G.

STROBEL, G.L.

TURNER, K.A.

VOORHEIS, G.M.

SCHUBBE D L X X

Certification of RCRA Closure for OU 15 IHSSs

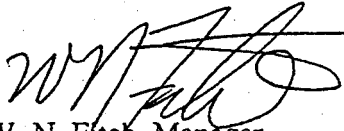
Dennis L. Schubbe
Operable Unit No. 15 Project Manager
Environmental Restoration Programs Division
EG&G Rocky Flats, Inc.

This purpose of this memorandum is to transmit a copy of the subject RCRA Clean Closure document, which has been completed with the signing of the document by Ms. Leanne Smith, Assistant Manager for Operations and Waste Management at the Rocky Flats Field Office.

A signed original of the subject document is attached for inclusion in the Administrative Record for Operable Unit No. 15 (OU 15). A second signed original has been forwarded to the State of Colorado, Department of Public Health and Environment.

If you need any additional information or explanation, please contact me through extension 4013.

This action is considered to be within the identified cost and scope of the Work Package, which covers the OU 15 effort.


W. N. Fitch, Manager
Operable Unit No. 15

Attachment

cc w/o Attachment:
J. Roberson, AMER, RFFO
L. Smith, AMOWM, RFFO
F. Lockhart, DAMER, RFFO
J. Wienand, ERMSA, RFFO
J. Kerridge, OWM, RFFO
T. Howell, OCC, RFFO
N. Matsuura, AMPME, RFFO
S. Stiger, EG&G

CORRES. CONTROL X X

DMN RECORD/080

ATS/T130G

Reviewed for Addressee
Corres. Control RFP

5-1-95 RDA
DATE BY

Ref Ltr. #

DOE ORDER # 5400.1

**CERTIFICATION OF RCRA CLOSURE
FOR OU 15 IHSSs**

April 5, 1995

Prepared for:

EG&G Rocky Flats, Inc.
Golden, Colorado 80402-0464

Prepared by:

WASTREN, Inc.
12000 N. Pecos, Suite 250
Westminster, Colorado 80234
(303) 450-0005

REVIEWED FOR CLASSIFICATION

BY

Jeffrey [Signature]

DATE

04/06/95

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ACRONYMS

CHWA	Colorado Hazardous Waste Act
DOE	Department of Energy
ER	EG&G Environmental Restoration
IHSSs	Individual Hazardous Substance Sites
OU	Operable Unit
QA/QC	quality assurance/quality control
RCRA	Resource Conservation and Recovery Act
RFEDS	Rocky Flats Environmental Database System
RFETS	Rocky Flats Environmental Technology Site
RFI/RI	RCRA Facility Investigation/Remedial Investigation
SVOC	semi-volatile organic compound
TC	Toxicity Characteristic
VOC	volatile organic compound
WSIC	Waste Stream Identification and Characterization

1.0 INTRODUCTION

The purpose of this report is to certify the Resource Conservation and Recovery Act (RCRA) closure of six Individual Hazardous Substance Sites (IHSSs) that comprise Operable Unit 15 (OU 15) at the Rocky Flats Environmental Technology Site (RFETS). *WASTREN, Inc.*, as an independent third party, has been retained by the RFETS Environmental Restoration (ER) Program Division to perform this certification. This report provides the data to support the clean closure determination by the owner/operator and an independent professional engineer as required by 6 CCR 1007-3 265.115. The data required for this determination is included in this report or incorporated by reference from OU 15 RCRA Facility Investigation/Remedial Investigation (RFI/RI) documentation. The closure of the OU 15 IHSSs was performed in accordance with applicable Colorado Hazardous Waste Act (CHWA) interim status requirements in 6 CCR 1007-3 Section 265, the RFETS RCRA Part B Permit (CDPHE 1991) and the approved *Final Phase I RFI/RI Work Plan for OU 15* (the Work Plan)(DOE 1993).

1.1 PROJECT DESCRIPTION

The six IHSSs that comprise OU 15 include four drum storage areas (IHSS 178, 179, 180 and 211), a thermal treatment unit for uranium chips (IHSS 204), and a bench scale treatment unit for cyanide laboratory solutions (IHSS 217). The drum storage areas were used in the past to store RCRA wastes over 90 days. RCRA wastes were treated in the two treatment units. Per approved Technical Memorandum #1, traditional closure plans were not prepared for these units since they comprise an operable unit within the jurisdiction of the Rocky Flats Interagency Agreement (DOE 1991). The RFI/RI Work Plan serves as the State and EPA approved RCRA closure plan for operable unit IHSSs.

The geology and hydrogeology for the OU 15 is presented in detail in Section 2.0 of the *Final Phase I RFI/RI Report for OU 15 Inside Building Closures* (the Final Report)(DOE 1995) and will not be repeated in this *Certification of RCRA Closure for OU 15 IHSSs*.

1.2 HISTORICAL OVERVIEW

The six IHSSs included in OU 15 are all located within various buildings at RFETS. Table 1 presents a summary of information about the individual OU 15 IHSSs. This information was taken from the Final Report (DOE 1995).

Table 1 OU 15 IHSS Information Summary

IHSS	Description	Location	RCRA Unit #	Year of first use
178	Drum Storage Area	Building 881, Room 165	N/A	1953
179	Drum Storage Area	Building 865, Room 145	N/A	1970
180	Drum Storage Area	Building 883, Room 104	N/A	1981
204	Original Uranium Chip Roaster	Building 447, Rooms 32 and 502	45	Not specified
211	Drum Storage Area	Building 881, Room 266B	26	1981
217	Cyanide Bench Scale Treatment	Building 881, Room 131C	32	1952*

* Date of installation for the laboratory table and fume hood. The date that cyanide treatment began is not specified.

A variety of operations were conducted in the buildings that contain the OU 15 IHSSs. These operations include:

- Building 447 houses the uranium chip roaster, process waste collection, and utilities systems. Nuclear weapon component production, drum cleaning and composite metal chip cementation processes were operational in Building 447 in the past.
- General metallurgy research was the principal use of Building 865 while IHSS 179 was in operation.
- A variety of production and support operations have been located in Building 881. Parts comprised of uranium and nonradioactive materials were produced many years ago. The building houses a variety of laboratory and other support operations including utilities, maintenance, and process waste collection.
- Metal rolling, forming, and shearing operations were performed in Building 883. The operations were performed on uranium and nonradioactive metals.

1.3 WASTE CHARACTERIZATION

The wastes that were stored or treated in the IHSSs were characterized in the Work Plan (DOE 1993). The waste characterization from the Work Plan is summarized below.

IHSS 178, Drum Storage Area - The wastes in this drum storage area were generated in Building 881. The characterization of the RCRA constituents was based on analytical results for wastes from Building 881, typical of the waste stored at the IHSS 178. The possible RCRA constituents identified were 1,1,1-trichloroethane and Freon TF (1,1,2-trichloro-1,2,2-trifluoroethane).

IHSS 179, Drum Storage Area - The RCRA characterization of the waste stored in this area is based on analytical results from samples collected from drums stored in the IHSS in 1986. The drums contained oils and chlorinated solvents contaminated with radionuclides and beryllium. The samples were analyzed for total alpha (radioactivity), beryllium, and selected organic compounds. 1,1,1-trichloroethane and Freon TF (1,1,2-trichloro-1,2,2-trifluoroethane) were detected.

IHSS 180, Drum Storage Area - The wastes stored in this IHSS included oils contaminated with organic compounds and uranium. Samples of wastes stored in this area were analyzed for radioactivity, beryllium, and "general components" in 1986. The possible RCRA constituents identified were 1,1,1-trichloroethane and Freon TF (1,1,2-trichloro-1,2,2-trifluoroethane).

IHSS 204, Original Uranium Chip Roaster - The chip roaster was used to oxidize uranium metal chips to uranium oxide to control the pyrophoric characteristics of uranium metal chips. The uranium chips were historically coated with oil and coolants contaminated with Freon TF and 1,1,1-trichloroethane. Since January 1988, the uranium chips have not been coated with oils and coolants that have RCRA solvent contamination (DOE 1995). The uranium chips were fed into the roaster, ignited, and converted to oxide as the chips passed through the four tiers of the roaster. The oxide was collected in drums at the bottom of the roaster. Freon TF and 1,1,1-trichloroethane were the RCRA constituents identified, by process knowledge, for this unit.

IHSS 211, Drum Storage Area - The characterization of the RCRA constituents for this IHSS is based on the Waste Stream Identification and Characterization (WSIC) study at RFETS in 1986 and 1987. The constituents of waste stored in the area include waste solvents (carbon tetrachloride, acetone, methyl alcohol, and butyl alcohol) and metals (including arsenic, barium, beryllium, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, mercury, nickel, potassium, selenium, silver, sodium, and thallium).

IHSS 217, Cyanide Bench Scale Treatment - The cyanide treatment unit was used to convert cyanide to cyanate in aqueous laboratory solutions within polyethylene bottles. The conversion was performed by adding calcium or sodium hypochlorite to oxidize the cyanide. Very low concentrations of other listed wastes (besides cyanide) may have been in these solutions.

1.4 UNIT DESCRIPTION

The OU 15 IHSSs are described in detail in the Final Report (DOE 1995). The unit descriptions are based on visual examinations of the units prior to sampling in April 1993. A brief description of the unit from this document is presented below.

IHSS 178, Drum Storage Area - This IHSS is located on the concrete floor of Room 165 in Building 881. There are two painted circles, each approximately four feet in diameter, on either side of a building column. A maximum of five 55-gallon drums could be placed in the IHSS. There are no secondary containment berms present around the IHSS or at the doors. With the exception of the two circles, the majority of the concrete floor is not painted. The unpainted concrete does have a finishing coat (sealer) and is in good condition.

IHSS 179, Drum Storage Area - This IHSS is located on a painted concrete floor in Room 145 in Building 865. The IHSS is adjacent to a large electrical panel. The IHSS is painted to mark its location and is approximately 8 feet by 12 feet. There are no secondary berms present around the IHSS. The paint and concrete floor are in good condition.

IHSS 180, Drum Storage Area - This IHSS is located on a painted concrete floor in Room 104 in Building 865. The IHSS is painted to mark its location and is approximately 10 feet by 16 feet. There are no secondary berms present around the IHSS. The paint and concrete floor are in good condition.

IHSS 204, Original Uranium Chip Roaster - This IHSS is comprised of a uranium chip roaster that is constructed of mild steel and alumina refractory brick. It is cylindrical with a diameter of 5 feet 6 inches and a height of 7 feet 4 inches. The chip inlet for the roaster is located in Room 502 and the main body of the roaster, including the oxide outlet ports is located in Room 32 of Building 447. The floors of both rooms are painted concrete. The floors are in good condition. There is black dust observable on the floors and exterior surfaces of the roaster. There are no secondary containment berms around Rooms 32 or 502. A wash rack/drum washing basin in Room 501 was also sampled for RCRA waste contamination. The concrete floor pad of the basin is sloped to a drain in the center of the pad. The pad and concrete berm are in good condition with no apparent gaps or cracks.

IHSS 211, Drum Storage Area - This IHSS is located on an epoxy-painted concrete floor in Room 266B of Building 881. The room is 10 feet by 20 feet and can store a maximum of twenty-nine 55-gallon drums. There are no secondary containment berms around the IHSS. There is a sealed crack, one to two inches wide, that runs the length of the room. Catch pans and collection bottles are used to collect any groundwater seepage into the room since Room 266B is partially below grade.

IHSS 217, Cyanide Bench Scale Treatment - This unit consisted of a 4 feet by 5 feet painted metal fume hood and laboratory table, three 4-liter polyethylene bottles, a glass beaker, and a chlorine-specific ion electrode. The floor within Room 131C of Building 881 is covered with linoleum tiles which are in good condition with some staining. Staining is evident on both the laboratory table and fume hood surfaces.

2.0 RCRA FACILITY INVESTIGATION

In addition to the review of the historical information presented in Section 1.0, two other investigative activities were performed to support OU 15 Inside Building Closures. These activities included a visual inspection and documentation of current conditions at each IHSS, and sampling and analysis of surfaces around each IHSS. A detailed description of the methods and results of these activities can be found in the Work Plan (DOE 1993), *Phase I RFI/RI Report Technical Memorandum #1* (Technical Memorandum #1)(DOE 1994), and the Final Report (DOE 1995).

The above activities were performed to meet the closure performance standards required by the RFETS RCRA Part B Permit (DOE 1991) issued October 30, 1991. The applicable standards as they appear in Section 5.1.2 of the Technical Memorandum #1 (DOE 1994) are as follows:

- a. Close the hazardous and mixed waste units in a manner that minimizes the need for further maintenance and controls; minimizes or eliminates the threat to human health and the environment; and minimizes or eliminates the post-closure escape of hazardous waste, hazardous waste constituents, leachate, contaminated rainfall, or waste decomposition products to the ground, surface waters, or the atmosphere.
- b. The closure performance standard for used rinsate from decontamination of concrete secondary containment areas shall be as follows:
 - (1) There must be no detectable levels of hazardous organic constituents;
 - (2) It must not exhibit any characteristic of a hazardous waste as defined in 6 CCR 1007-3 Part 261, Subpart C; and
 - (3) The levels of Toxicity Characteristic (TC) metals must be at or below the background level in the unused rinsate solution.
- c. Parameter selection for the used rinsate analysis will be based on the specific wastes stored at the unit. These wastes are specified in Part III of the State RCRA permit.

3.0 RCRA CLOSURE CERTIFICATION ACTIVITIES

The following activities were performed by *WASTREN* personnel to certify the OU 15 closure meets the performance standards described in Section 2.0.

3.1 VISUAL INSPECTION OF EACH IHSS

The OU 15 IHSSs were inspected on March 23, 1995, by a *WASTREN* representative to verify the unit descriptions in the OU 15 RFI/RI documentation (which are summarized in Section 1.4). A summary of the observations, by IHSS, is provided below.

IHSS 178, Drum Storage Area - The floor is unpainted except for the two circles and yellow paint around the fire control system pipes. The unpainted areas of the concrete floor are covered with a clear sealant. The floor is in good condition. Carpeting has been added to the floor since the rinsate samples were taken. There are no waste drums stored in this room. There is no visual evidence of spills or releases within the IHSS. It appears this area is no longer being used as a 90-day storage area.

IHSS 179, Drum Storage Area - The IHSS floor is painted yellow. The entire floor of Room 145 is painted. The floor is in good condition. There are no waste drums stored in the IHSS. There is no visual evidence of spills or releases within the IHSS.

IHSS 180, Drum Storage Area - The IHSS floor is painted yellow. The entire floor of Room 104 is painted. The floor is in good condition. There are no RCRA waste drums stored in the IHSS. Two low-level waste drums are in stored within the IHSS boundaries. There is no visual evidence of spills or releases within the IHSS.

IHSS 204, Original Uranium Chip Roaster - The painted floors are in good condition in Rooms 32 and 502. There is black dust observable on the equipment and on the floors. Other than the black dust, there are no signs of spills or releases within the IHSS. Equipment and drums are stored within both rooms. The floor of the wash basin is in good condition. There is debris from washing located in the rack. Analytical results from hot water rinsate of the IHSS do not indicate the presence of RCRA wastes in the black dust or washrack debris.

IHSS 211, Drum Storage Area - The entire floor of Room 266B is freshly painted. The new paint was applied after the hot water rinsate samples were taken. The crack in the floor is visible only by close inspection (For additional details on the cracked floor, refer to the Final Report (DOE 1995) description of IHSS 211). There are no RCRA waste drums stored in the IHSS although it is designated a 90-day storage area. There is no visual evidence of spills or releases within the IHSS.

IHSS 217, Cyanide Bench Scale Treatment - The remaining equipment from the cyanide treatment process is the lab table and fume hood. There is staining on this equipment as noted in the Final Report (DOE 1995). There are two penetrations in the lab table that appear to be process drains. The Work Plan (DOE 1993) states the drains are not part of the OU 15 closure. The Work Plan does not require sampling in the drains or inside the ventilation ducting exiting the fume hood. There is no waste stored within the IHSS.

3.2 SAMPLING PROCEDURES VERIFICATION

Verification that the sample procedures were followed was performed by comparing the procedures outlined to the activities reported. The sampling procedures are found in Section 7.0, Field Sampling Plan, of the Work Plan (DOE 1993). Section 3.0, Methods, of the Technical Memorandum #1 (DOE 1994), and Section 3.0, OU 15 Field Investigation, of the Final Report (DOE 1995) contain information on the sampling activities. Specifically, the sampling activities verified were:

- the number of samples including both rinsate and quality assurance/quality control (QA/QC) samples
- the procedure for taking the sample
- sample location
- chain of custody documentation.

No discrepancies were found between the planned events and reported events. However, the chain of custody forms displayed in Appendix D of the Final Report did not contain a receiver's signature. Data packages located in ER's library at Interlocken were reviewed. The data packages were found to contain the laboratory's copy of the chain of custody with all signatures.

3.3 ANALYTICAL SUITES VERIFICATION

The required RCRA analytical suites [the Target Analyte List for Metals, and the Target Compound List for semi-volatile organic compounds (SVOCs) and volatile organic compounds (VOCs)] are presented in Table 7-1 of the Work Plan (DOE 1993). The required suites were compared to the validated analytical results tabulated in the Rocky Flats Environmental Database System (RFEDS) printout and presented in Appendix E of the Final Report (DOE 1995). The review of Appendix E indicated that all the analyses requested in Section 7.3.2 of the Work Plan (DOE 1993) were performed. No discrepancies were found.

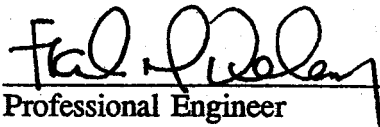
3.4 VERIFICATION THAT ANALYTICAL RESULTS MEET THE CLOSURE PERFORMANCE STANDARDS

Verification that the RCRA constituents comply with the closure performance standards in Section 5.1.2 of Technical Memorandum #1 was performed by comparing the validated analytical data presented in Appendix E of the Final Report to the closure standards in Section 2.0 of this report. In addition, one sample from the original data packages for each IHSS filed at ER's library was reviewed (about 10% of the total samples) to verify the accuracy of electronic data transfer from the contracted lab to the RFEDS. All of the data presented in Appendix E was then reviewed for compliance with the closure performance standards as stated in Section 2.0. No discrepancies were found.

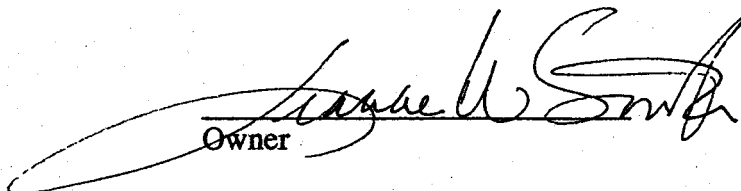
4.0 CONCLUSIONS AND CLOSURE CERTIFICATION

The information in Technical Memorandum #1 (DOE 1994), and the Final Report (DOE 1995) provide the information required for RCRA closure of the OU 15 IHSSs. Review of the analytical data packages and independent visual inspections by *WASTREN, Inc.* support the RCRA closure information developed in these reports. Based on this information, the RCRA closure performance standards for OU 15 inside building closures have been met.

The undersigned hereby certify that closure of the previously described six IHSSs within Operable Unit 15 at the Rocky Flats Environmental Technology Site was performed in accordance with the specifications of the approved closure plan entitled "Final Phase I RFI/RI Work Plan for Operable Unit 15," dated March 1993 (DOE 1993).


Professional Engineer

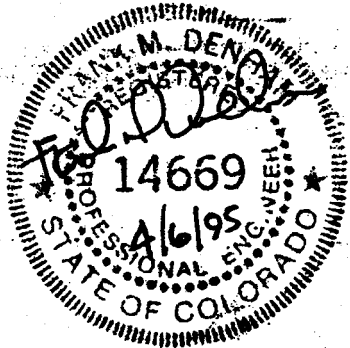
Frank M. Denham, P.E.
WASTREN, Inc.
12000 North Pecos, Suite 250
Westminster, CO 80234


Owner

Leanne Smith, Assistant Manager
Operations and Waste Management
Rocky Flats Field Office
U.S. Department of Energy

4/6/95
Date

Apr 23, 1995
Date



CORRES. CONTROL
INCOMING LTR NO.

02669 RF 95

DUE
DATE

ACTION

DIST.	LTR	ENC
BORGMAN, K.A.		
BUHL, T.R.		
CARD, R.G.		
DEAN, C.		
EVANS, B.L.		
FERRERA, D.W.		
GILLISON, W.R.		
GRANT, B.A.	X	
HEDAH, T.G.	X	
HERRING, C.L.		
HILL, J.A.		
HUEMAN, T.P.		
KELL, R.E.		
KELLY, G.M.		
LAREAU, D.M.		
LEE, E.M.		
MANI, V.		
MARTINEZ, L.A.		
McANALLY, J.L.		
McGOVERN, L.J.		
McKAY, R.		
McKIBBIN, J.G.		
MEADOWS, S.M.		
OKEY, R.		
O'BRIEN, G.D.		
PANGERSIS, P.A.		
SANDLIN, N.B.		
SHUMWAY, W.K.		
STAGG, R.		
STEELMAN, M.		
TUOR, N.R.		
TURNER, K.A.		
VOORHEIS, G.M.		
WALLER, C.A.		
Peter K. Ticknor	X	
Mark A. Harker	X	

CORRES. CONTROL X X
ADMN RECORD/080
PATST/130G

Reviewed for Addressee
Corres. Control RFP

11/1/95
DATE BY

Ref Ltr. #

DOE ORDER # 5400.1

Permit Mod 44

Close - 0415

STATE OF COLORADO



Colorado Department
of Public Health
and Environment

1 NOV 5 1995
1 RFETS-CC-1
Gomer, Governor
Shwayder, Acting Executive Director

ated to protecting and improving the health and environment of the people of Colorado

ARDOUS MATERIALS AND WASTE MANAGEMENT DIVISION

Cherry Creek Dr. S. 222 S. 6th Street, Room 232
er, Colorado 80222-1530 Grand Junction, Colorado 81501-2768
e (303) 692-3300 Phone (303) 248-7164
303) 759-5355 Fax (303) 248-7198

October 25, 1995

Ms. Jesse Roberson
Assistant Manager for Environmental Programs
U.S. Department of Energy
P.O. Box 928
Golden, CO 80402-0928

RE: Decision Declaration Replacement Pages for Operable Units 15 and 16

Dear Ms. Roberson:

The Colorado Department of Public Health and Environment, Hazardous Materials and Waste Management Division (CDPHE), is hereby issuing replacement pages for the Rocky Flats Environmental Technology Site (RFETS) Hazardous Waste Permit. The enclosed declarations summarize the Corrective Action Decisions/Record of Decisions as agreed to by the U.S. Environmental Protection Agency, the U.S. Department of Energy, and CDPHE for operable units (OUs) 15 and 16. The enclosed pages will replace pages 24 and 25 of Table 6 - Milestone Schedules (Section XV of the RFETS Permit) for OUs 15 and 16.

If you have any questions regarding this matter, please contact Chris Gilbreath at (303) 692-3371.

Sincerely,

Joe Schieffelin
Joe Schieffelin
Rocky Flats Unit Leader
Hazardous Waste Control Program

cc: S. Tarlton, CDPHE-OE
T. Rehder, EPA
M. Aguilar, EPA
K. Peter, Kaiser-Hill, T-130C
K. Ticknor, RMRS, T-130C
Jefferson County Health Department

Operable Unit 15: Inside Building Closures Corrective Action Decision/Record of Decision

Statement of Basis and Purpose

This decision document presents the selected remedial action/corrective action for the Rocky Flats Operable Unit (OU) 15: Inside Building Closures. The selected remedial action was chosen in accordance with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980 as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986, the Colorado Hazardous Waste Act (CHWA) and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The Resource Conservation and Recovery Act (RCRA) is administered through the CHWA by the Colorado Department of Public Health and the Environment (CDPHE). OU15 was investigated and a Preferred Alternative was selected in compliance with the Federal Facility Agreement and Consent Order Inter-Agency Agreement (IAG) signed by the U.S. Department of Energy (DOE), the State of Colorado, and the U.S. Environmental Protection Agency (EPA) on January 22, 1991.

Description of the Selected Remedies

OU15: Inside Building Closures is composed of six Individual Hazardous Substance Sites (IHSSs). The preferred alternative for OU 15 consists of the following actions: 1) Clean Closure under RCRA for all six of the OU15 IHSSs; 2) a No Action CERCLA decision for IHSSs 178, 211 and 217; and 3) a deferral of any CERCLA actions at IHSSs 179, 180, and 204 until final disposition of their respective buildings. RCRA closure certification for the six IHSSs, signed by an independent registered professional engineer, has been approved by CDPHE. The No Action CERCLA decision for IHSSs 178, 211, and 217 is based upon the NCP, which provides for the selection of a No Action alternative when a site or OU is already in a protective state. OU15 IHSSs 179, 180, and 204 will be closed as IAG IHSSs and any future CERCLA action decisions will be made based upon the ultimate disposition of the buildings, inclusive of the physical areas previously described as OU15 IHSSs. Evaluation of remedial alternatives and closure activities included waste minimization considerations.

Declaration Statement

DOE has determined that no remedial action is necessary to be protective of human health and the environment at IHSSs 178, 211, and 217 because they meet the clean closure requirements of the Rocky Flats RCRA Permit (RFRP) and the Federal occupational radiation protection standards. At IHSSs 179, 180, and 204, no remedial action is currently necessary because they meet the clean closure requirements of the RFRP and the Rocky Flats radiological control program is in compliance with Applicable or Relevant and Appropriate Requirements (ARARs)/To Be Considered (TBC) criteria and other identified protective standards. Future CERCLA actions may be required at the time of ultimate disposition of the buildings. Because the remedy will not result in hazardous substances remaining onsite above ARARs, TBCs, or protective standards, a five-year review is not required.

Operable Unit 16: Low Priority Sites Corrective Action Decision/Record of Decision

Statement of Basis and Purpose

This decision document presents the selected remedial action for the Rocky Flats Plant Operable Unit (OU) 16: Low Priority Sites, located near Golden, Colorado. The selected remedial action was chosen in accordance with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986, the Colorado Hazardous Waste Act (CHWA) and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). OU 16 was investigated and a final No Further Action Justification Document (NFAJD) was approved in compliance with the Federal Facility Agreement and Consent Order signed by the U.S. Department of Energy (DOE), the State of Colorado, and the U.S. Environmental Protection Agency (EPA) on January 22, 1991.

Description of the Selected Remedy: No Action

OU16: Low Priority Sites was originally composed of seven Individual Hazardous Substance Sites (IHSSs). The decision for a "No Action" remedy for five of the IHSSs (i.e., 185, 192, 193, 194, and 195) was based upon the NCP which provides for the selection of a No Action alternative when a site or OU is already in a protective state. The Risk Evaluation performed in the Final "No Further Action Justification" document determined that these IHSSs were in a protective state and presented no unacceptable risk to human health and the environment. Further investigation has been recommended for IHSS 196 as part of OU5 and for IHSS 197 as part of OU13.

Declaration Statement


DOE has determined that no remedial action is necessary to be protective of human health and the environment at *Rocky Flats Plant Operable Unit 16: Low Priority Sites*. Because the remedy will not result in hazardous substances remaining onsite above health-based levels, a five-year review is not required.

File ??

INTEROFFICE CORRESPONDENCE

DATE: June 16, 1992

TO: M. S. Simmons, Foundry, Bldg. 444, X7574

FROM:  D. L. Schubbe, Remediation Programs, Bldg. 80, X8709

SUBJECT: CLOSURE OF RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) UNIT NO. 45,
ORIGINAL URANIUM CHIP ROASTER, IHSS 204 - DLS-006-92

The Colorado Department of Health (CDH) has recently provided EG&G with clarification in which a specific Individual Hazardous Substance Site (IHSS) may be closed on an accelerated schedule. The accelerated schedule as discussed in CDH's letter dated May 29, 1992 (attached) may be used to attempt to close RCRA Unit No. 45 (i.e., the Original Uranium Chip Roaster) prior to the regulatory deadline (i.e., loss of interim status) of November 8, 1992. After November 8, 1992, RCRA Interim Status will no longer be in effect and the use of the Original Uranium Chip Roaster may have to cease in order to comply with RCRA.

The general process associated with implementation and completion of a RCRA closure plan and approximate time in working days required is presented below:

- | | |
|--|--------------|
| 1) Prepare/modify closure plan | 53 days |
| 2) CDH review/comment resolution | 31 days |
| 3) Public review and comment | 21 days |
| 4) Finalize closure plan/regulatory approval | 30 days |
| 5) Implement closure plan | 200 days |
| 6) Obtain "Independent Certification" of RCRA closure plan | 10 days, and |
| 7) CDH final review and approval of closure | 21 days. |

In order to accelerate the RCRA closure of the Original Uranium Chip Roaster, an updated RCRA closure plan which represents current operations and conditions of RCRA Unit No. 45 must be submitted to CDH. Remediation Programs Division (RPD) can oversee the preparation of an updated closure plan; however, prior to initiation of the process described above, the appropriate funding must be obtained. RPD requested funding for implementation of the RCRA Interim Status closure plans from DOE/RFO on February 4, 1992. No response has been received from DOE/RFO regarding RPD's funding request for RCRA closures. Similarly, no funding is currently available for RPD to oversee closure plan updating, implementation and reporting requirements.

Due to the lack of funding and the amount of time which would be necessary for closure of a RCRA Unit, closure of the Original Uranium Chip Roaster by November 8, 1992, is highly unlikely.

M. S. Simmons
June 16, 1992
DLS-006-92
Page 2

For example, the following items have completion times which are not controllable by EG&G:

- 1) CDH closure plan review and comment time;
- 2) Public review and comment time;
- 3) Procurement subcontracting process time;
- 4) Laboratory sample analysis turnaround time;
- 5) CDH RCRA closure approval time; and
- 6) DOE/RFO funding allocation time.

If you have questions regarding this correspondence please contact D. L. Schubbe on extension 8709.

DLS:cet

Attachment:
As Stated

cc:

M. B. Arndt
P. W. Edrich
F. D. Hobbs
R. T. Ogg
G. S. Taylor



**COLORADO
DEPARTMENT
OF HEALTH**

ROY ROMER
Governor

PATRICIA A. NOLAN, MD, MPH
Executive Director

Hazardous Materials and Waste Management Division
4210 East 11th Avenue
Denver, Colorado 80220-3716
(303) 331-4830 / FAX (303) 331-4401

Telefax Numbers:
Main Building, Denver
(303) 322-9076

Piarmigan Place, Denver
(303) 320-1529

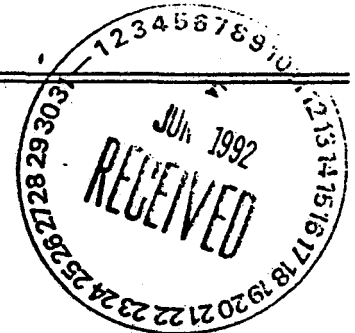
First National Bank Building, Denver
(303) 355-6559

Grand Junction Office
(303) 248-7198

Pueblo Office
(719) 543-8441

May 29, 1992

Mr. Frazer Lockhart
U. S. Department of Energy
Rocky Flats Plant
Building 116
P. O. Box 928
Golden, Colorado 80402



**RE: Integration of RFI/RI Investigation and CHWA Closure Processes
for Operable Unit 15**

Dear Mr. Lockhart,

The Colorado Department of Health, Hazardous Materials and Waste Management Division (the Division) and the U. S. Environmental Protection Agency (EPA) held an OU-15 scoping meeting on April 20, 1992 with DOE, EG&G and subcontractor representatives. Questions arose on the integration of RFI/RI investigation activities into previously proposed, IHSS specific, closure plans and the relevancy of those plans.

The IAG Statement of Work (SOW), Section I.B.11.a, specifies that "DOE shall submit closure plans to the State for all interim status units (IHSSs) undergoing closure within buildings (OU-15) in accordance with the CHWA, 6CCR 1007-3, Part 265." Closure of these IHSSs is to proceed in accordance with these regulations; thus, the closure plans are relevant provided they reflect the current conditions of the unit.

The intent of the IAG is that closure plans be the primary vehicle to achieve closure of the OU-15 "sources" in anticipation that neither soil, surface water nor ground water have been contaminated. It is thus expected that investigation under the closure plans (CHWA regulations, 6CCR 1007-3, Part 265) will provide sufficient information for the Division to determine if clean closure is possible or if further action is warranted. (Clean-closure may apply both to IHSSs where no releases occurred and to those with known or suspected releases. Closure in the latter situations would still be implemented through the closure plan with clean-closure as the goal.)

However, Section I.B.11.a further specifies that DOE shall submit a Phase I RFI/RI Workplan to EPA and the State. By fully complying with the CHWA closure regulations, DOE should also satisfy the characterization of nature and extent requirements of an RFI/RI investigation. Accordingly, the Closure Certification Report and the Phase I RFI/RI Report should be equivalent documents. If DOE wishes to submit a Closure Certification Report prior to submittal of the RFI/RI Report, the subsequent Report should merely summarize the closure investigation and closure activities of the specific IHSS.

If as expected by the nature of this OU, the Division and EPA determine that no further investigatory work is required, the RFI/RI Report may be approved as a Final RFI/RI Report. However, the IAG makes no specific provision for a combination of "no further action" IHSSs and those IHSSs that may require further

investigation. Consequently, it may be in DOE's interest to submit two separate RFI/RI Reports, one for "no further action" IHSSs and another for any IHSSs where a Phase II effort becomes necessary.

DOE is scheduled to submit a draft Phase I RFI/RI Workplan on June 1, 1992. The Field Sampling Plan (FSP) portions specific to each IHSS, upon final approval, should be substituted for the source characterization sections of the previously proposed closure plans. (The only exception would be when the existing source characterization section of a closure plan is sufficient to characterize the unit. If this occurs, the source characterization section should then be incorporated identically into the FSP.)

The Division expects to approve the Phase I RFI/RI Workplan on November 24, 1992. We will then review the proposed closure plans, as expeditiously as possible, to determine their adequacy. DOE will have an opportunity to address the Division's comments, following which, a 30-day public comment period will be opened by the Division. The Division will respond to any comments and must grant final approval before DOE may proceed with the closure of the individual IHSSs.

If DOE wishes to close a specific IHSS on an accelerated schedule, the Division will review the relevant closure plan concurrent with its review of the Phase I RFI/RI Workplan. The closure plan, however, must represent the current operations and conditions of the unit before the Division will proceed with its review.

If you have any questions concerning this subject, please contact Division staff, Harlen Ainscough at 331-4977 or Joe Schieffelin at 331-4421.

Sincerely,



Gary W. Baughman
Unit Leader, Hazardous Waste Facilities
Hazardous Materials and Waste Management Division

cc: Daniel S. Miller, AGO
Martin Hestmark, EPA
Dave Maxwell, EPA
Jen Pepe, DOE
Paul Bunge, EG&G
Randy Ogg, EG&G
Dennis Schubbe, EG&G
Barbara Barry, RFPD

STATUS OF PROPOSED NFAs

IHSS	OU	PAC	DESCRIPTION	IDENTIFIED	UPDATED	NOTES
167.2	7	NE-167.2	Pond Area Spray Field (Center Area)	HRR ¹	Annual 1996 ²	NFA
167.3	7	NE-167.3	South Area Spray Field	HRR ¹	Annual 1996 ²	NFA
216.1	6	NE-216.1	East Spray Fields - North Area	HRR ¹	Annual 1996 ²	NFA
NA	IA	300-708	Transformers North of Building 371	HRR ¹	Annual 1996 ²	Determination delayed for State to review impact of dioxin-like-PCBs to closure actions.
NA	IA	300-709	Transformer Leak 334-1	HRR ¹	Annual 1996 ²	Determination delayed for State to review impact of dioxin-like-PCBs to closure actions.
204	15	400-204	Original Uranium Chip Roaster	HRR ¹	Annual 1996 ²	NFA
NA	IA	500-900	Transformer Leak - 515/516	HRR ¹	Annual 1996 ²	Determination delayed for State to review impact of dioxin-like-PCBs to closure actions.
NA	IA	500-901	Transformer Leak - 555	HRR ¹	Annual 1996 ²	Determination delayed for State to review impact of dioxin-like-PCBs to closure actions.
NA	IA	500-902	Transformer Leak - 559	HRR ¹	Annual 1996 ²	Determination delayed for State to review impact of dioxin-like-PCBs to closure actions.
NA	IA	500-905	Transformer Leak - 558-1	HRR ¹	Annual 1996 ²	Determination delayed for State to review impact of dioxin-like-PCBs to closure actions.

OU	Unit Number	Unit Name	Unit Status	Compliance Action
IA	IHSS 186 (not identified in RFCA Attachment 3 as a RCRA unit, but on Master List)	Valve Vault 12, W of Building 562, RCRA Unit 40.61	Subject to Part 265 Interim Status Standards. Close under RFCA	remediated, if necessary, under ER RSOP
OU 7	IHSS 203	Hazardous Waste Storage Area (Unit 1 part of Present Landfill)	Interim Status Unit Close valve vault in accordance with the Component Removal RSOP under RFCA.	Soil will be characterized under IASAP and remediated, if necessary, under ER RSOP
OU 15	IHSS 204	Original Uranium Chip Roaster, RCRA Unit 45	RCRA Interim Status Unit. Subject to Part 265 Interim Status Standards. Close under RFCA No longer subject to RCRA regulation Closed in accordance with "Final Phase I RFI/RI Work Plan for Operable Unit (OU) 15" (DOE 1993); Closure Certification signed 4/6/95 (ref. 01331-RF-95, 4/28/95). Will be removed in accordance with the Component Removal RSOP.	Landfill CAP addressed in 96 HRR. Accepted as an NFA 7/9/99. OU 15 is no longer subject to RCRA regulation (104 F55), Deleted to pending closure. Still need to close in IA ROD. NFA proposed in September 1996 Annual HRR Update (Soil is part of UBC 447)
IA	IHSS 205	Sump #3, Acid Site	Associated with Acid	Soil will be characterized ER will provide data to

42/42